

Assessment of Vegetation Community Conservation Significance

Big W Forster, Lakes Way, Forster



Prepared For
Woolworths Limited

12 February 2008



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Environmental Planning, Assessment and Management

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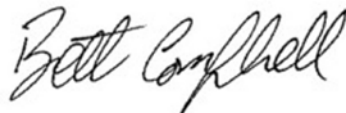
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Table of Contents

Introduction

1.1	Background	1
1.2	Purpose of the Report.....	1
1.3	Objectives of the Study	1
1.4	Outline of the Report	2

Methodology

2.1	Desktop Review and Background Research	3
2.2	Tree Assessment.....	3
2.3	Koala Habitat Assessment	4
2.3.1	SEPP 44 – Koala Habitat Protection	4
2.3.2	SEPP 44 definitions.....	4
2.4	Tree Inventory.....	5
2.5	Assessment of Vegetation remnant significance in relation to listed Endangered Ecological Communities	5
2.6	Vegetation Condition Assessment	6

Results and Discussion

3.1	Results of Tree assessment and Koala Habitat Assessment	7
3.2	Vegetation Community description and Assessment of Conservation significance.....	7
3.2.1	Vegetation Community description	8
3.2.2	Site Geology and Soils.....	8
3.2.3	Vegetation Condition Assessment.....	10
3.2.4	Conservation significance for Threatened Flora and Fauna.....	10
3.2.5	Opportunistic observations	11

Conclusion

4.1	Conclusion	12
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Appendix A

Results of Tree Assessment

Appendix B

Site Photographs



Table of Contents *Continued*

Figures	Follows Page No.
Figure 1.1 - Proposed Big W/Bulky Goods Site	1
Figure 2.1 - Geological Formations in the Vicinity of the Site.....	3
Figure 2.2 - Soil Landscapes in the Vicinity of the Site.....	3

Introduction

1.1 Background

Orogen Pty Ltd has been commissioned by Woolworths Limited to conduct an assessment of the conservation significance of the Vegetation Communities occurring within the proposed Big W development area within Lot 37 DP 1023220 at South Forster. The proposed Big W development area is approximately 5.6 hectares in area and is situated between the Pipers Creek Foreshore Reserve and The Lakes Way, opposite the Breese Parade roundabout, at South Forster (refer **Figure 1.1**).

The majority of the site has been cleared, and has been subject to extensive earthworks including: the excavation of sand resources from the majority of the site; the construction of artificial drainage channels; the bunding of cells in preparation for future receipt of dredge material for the purposes of filling; and a small area in the north of Lot 37 that has been filled.

As such, the majority of the proposed development area is devoid of remnant native vegetation, however a small vegetation remnant occurs along the eastern boundary of the site adjoining the existing Motel site. A small number of scattered Eucalypts, Melaleucas and Casuarinas occur in the highly disturbed areas of the site.

This remnant is heavily disturbed and isolated, however represents the only noteworthy native vegetation in the development area and as such investigations were undertaken to determine the conservation significance of this vegetation.

1.2 Purpose of the Report

This report investigates the ecological issues associated with the proposed development. This report is intended to assist the Catchment Management Authority (CMA) and Great Lakes Council (Council) in the rezoning process for this precinct and to support any development applications for the proposal. Specifically, the purpose of the conservation significance assessment is to provide all necessary data and provide an assessment in accordance with relevant legislative instruments and assessment methodologies, to assist in the agencies respective roles in the rezoning and development assessment process.

1.3 Objectives of the Study

The objectives of the study were to:

- Preparation of documentation that evaluates the community against the criteria of the final determination of the Endangered Ecological Community (EEC) Swamp Sclerophyll Forest on Coastal Floodplains;



LEGEND

■ Subject Site



Figure 1.1 - Proposed Big W/Bulky Goods Site

- Identify the significance of vegetation for Threatened species currently utilising the habitats within and adjoining the proposed development area. This determination was based on the results of fieldwork, other ecological surveys in the locality and the application of the Precautionary Principle;
- Conduct an assessment in accordance with SEPP 44 Koala Habitat Protection; and
- Provide an assessment in accordance Native Vegetation Regulation – Environmental Outcomes Assessment Methodology to determine whether this community is considered low quality.

1.4 Outline of the Report

The report has been structured to provide information consistent with the *Threatened Species Conservation Act 1995* and the *Native Vegetation Regulation 2006*. The report is structured as follows:

Section 2 - describes the survey methodology undertaken for the conservation significance assessments;

Section 3 - describes the results of the surveys and assessments and provides a discussion in relation to these investigations in relation to the conservation significance values of the subject site; and

Section 4–provides a conclusion and recommendations in relation to the conservation significance values of the subject site.

Methodology

2.1 Desktop Review and Background Research

The desktop component of the study involved the review of relevant flora and fauna information available for the locality of the subject site. This desktop review includes a search of the records held on the National Parks and Wildlife Service, Atlas of NSW Wildlife and recent fauna surveys conducted within and adjoining habitats. Sources of information included:

- Atlas of NSW Wildlife, (NPWS 2004); and
- EPBC Act online Database.

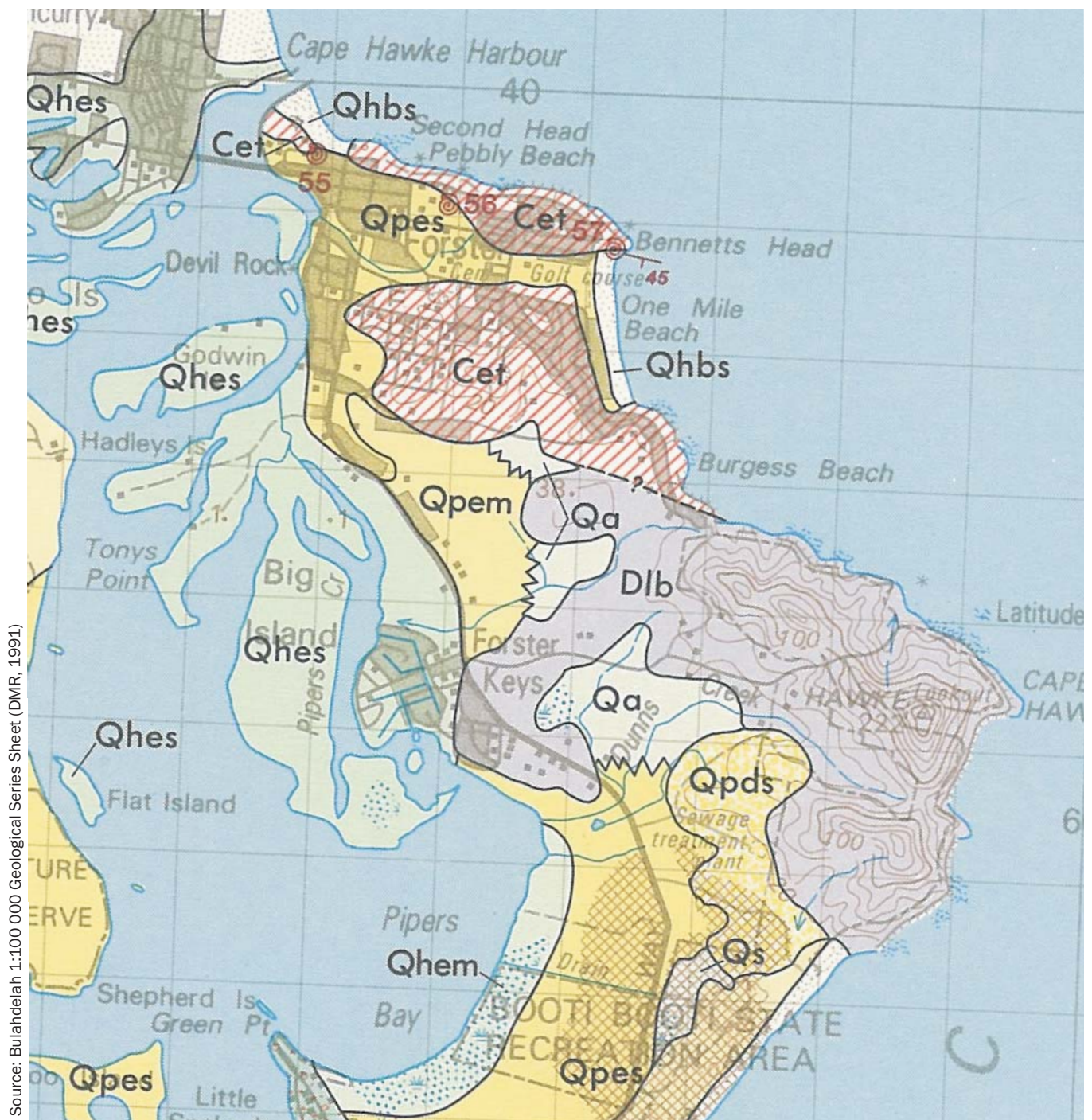
2.2 Tree Assessment

A tree assessment was undertaken by Orogen on 6 December 2007 and 14 January 2008. The main aim of this survey was to evaluate the habitat value of these trees, including the availability of any hollow resources and to quantify the number of Koala Feed Trees listed under Schedule 2 of SEPP 44 – Koala Habitat Protection within the site.

Prior to the tree assessment, trees with a DBH > 10 cm had been tagged and surveyed using differential GPS by a registered surveyor (Lidbury, Summers and Whiteman Consulting Surveyors, Planners and Engineers). The location of each of the tagged trees was then subsequently plotted onto a plan of the site.

During the assessment, the entire site was traversed on foot by two (2) personnel, and the following details of each tagged tree were recorded on pro-forma data sheets:

- Tree species;
- Approximate Diameter at Breast Height (DBH);
- Occurrence of hollows, including approximate diameter of hollows if observed; and
- Other habitat values.



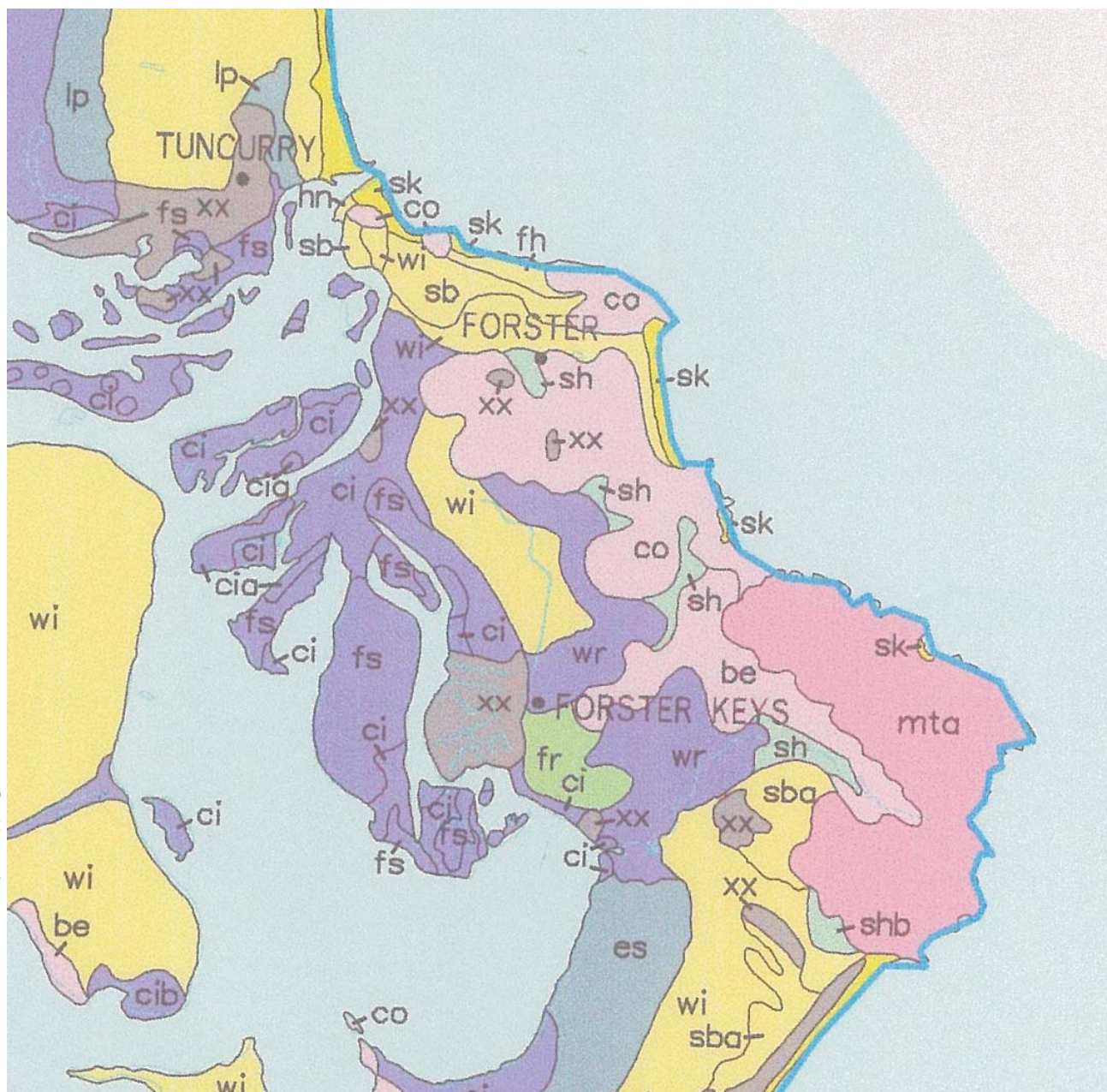
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- Qhes** Estuarine sandy Backbarrier deposits (washover and tidal delta deposits)
- Qpem** Estuarine and muddy deposits



Figure 2.1 - Geological Formations in the Vicinity of the Site

Source: Draft Soil Landscape Mapping - Wallis Lake Catchment (DNR, 2007)



LEGEND

fs Frogella Swamp

Landscape - low lying Holocene extratidal estuarine plain. Slope Gradients <1 %, local relief <3 m. *Soils* - deep (>200 cm) poorly drained Acid Peats/Silaceous Sands or Acid Peat/Humic Gley Integrades. *Limitations* - flood hazard, waterlogging, high water tables, potential acid sulphate soils and saline soils at depth, very poorly drained acid soils with saline subsoils. *Capability* - high limitations for grazing, high limitations for regular cultivation and high limitations for urban development.

wi Wallis Island

Landscape - imperfectly to poorly drained Pleistocene sand sheet. Slope Gradient <5 %. Local relief <3 m. High water table within 100cm of surface. *Soils* - deep (>300 cm) imperfectly drained Humus Podzols. *Limitation* - permanently high water tables, groundwater pollution hazard, seasonal waterlogging, acid, sandy, non-cohesive soils of very poor fertility. *Capability* - moderate limitations for grazing, high limitations for regular cultivation and moderate limitations for urban development.

ci Cockatoo Island

Landscape - tidal flats on Holocene estuarine sediments. Local relief <3 m and slopes <3 %. Tidal flats and creeks in coastal inlets and estuaries regularly inundated by brackish tidal waters. Uncleared mangrove woodland and saltmarsh flats.



Figure 2.2 - Soil Landscapes in the Vicinity of the Site

2.3 Koala Habitat Assessment

2.3.1 SEPP 44 – Koala Habitat Protection

The objective of State Environmental Planning Policy No. 44 - Koala Habitat Protection (SEPP 44) is to encourage the conservation and management of habitat areas for Koalas to ensure their current distribution is maintained. In accordance with SEPP 44, an assessment was undertaken to determine the occurrence of Koala habitat within the site.

A SEPP 44 assessment involves:

- Determination of whether the study area occurs within the Local Government Areas (LGA's) listed on Schedule 1 of SEPP 44;
- Determination of potential Koala habitat within the site;
- Determination of core Koala Habitat; and
- Consideration of the need for a Koala Plan of Management.

2.3.2 SEPP 44 definitions

Potential Koala Habitat

Potential Koala habitat is defined under SEPP 44 as “areas of native vegetation where the trees of the types listed in Schedule 2 constitute at least 15% of the total number of trees in the upper or lower strata of the tree component.”

Core Koala Habitat

Core Koala Habitat is defined by SEPP 44 as “an area of land with a resident population of Koalas, evidenced by attributes such as breeding females (that is, females with young) and recent sightings of and historic records of a population.

Determination of Potential Koala Habitat

In order to determine the occurrence of Potential Koala Habitat (pursuant to SEPP 44) within the site, the number of Koala feed trees identified during the tree assessment was tallied and expressed as a percentage of the total number of tagged trees within the site.

Koala Scat Searches

Specific Koala scat searches were undertaken within the site to determine habitat utilisation by the Koala and evaluate the level of Koala activity. The scat searches were undertaken using a modified version of the Spot Assessment Technique as ascribed in Phillips and Callaghan (1995). Instead of searching trees within a radius of a centre tree as ascribed by Phillips and Callaghan, however, a random transect approach was undertaken for the searches.

The methodology involved searching the basal circumference of a tree that is known to, or likely to be utilised by Koalas. Each tree was searched for evidence of Koala scats and scratches for two (2) to three (3) minutes, or until a Koala scat was found, whichever came first. A total of 54 trees within the site were surveyed using this method.

The activity levels were calculated by dividing the total number of trees found with Koala scats by the total number of trees searched and expressed as a percentage.

2.4 Tree Inventory

An inventory of each tree identified on the survey plan which includes:

- Identification of the species;
- Diameter at Breast Height;
- Occurrence of hollows or other habitat values; and
- Koala Scat and Scratch surveys to determine any Koala utilisation of the trees in accordance with State Environmental Planning Policy No. 44 – Koala Habitat Protection.

2.5 Assessment of Vegetation remnant significance in relation to listed Endangered Ecological Communities

The vegetation remnant within the proposed development site was assessed as to the conformance to the Final Determinations of Endangered Ecological Communities known or potentially occurring within the locality.

This assessment was undertaken based on the broad vegetation community as described by the dominant overstorey in accordance with Walker and Hopkins (1990) which was subsequently compared to the listed EEC's.

This vegetation community was then assessed in terms of habitat when compared to the Final determination and published scientific papers. This habitat assessment (and the parameters of geophysical occurrence of the EEC's) was investigated with reference to the relevant Geological Series sheets, Draft Soil Landscape mapping and specific on-site soils assessments.

Further assessment was then undertaken as to the planning applications of this assessment with reference to findings of the NSW Land and Environment Court.

2.6 Vegetation Condition Assessment

The Native Vegetation Regulation 2005 Environmental Outcomes Assessment Methodology (NSW Department of Natural Resources 2007) states “Clearing of native vegetation is permitted under the Native Vegetation Act 2003 if it improves or maintains environmental outcomes, however.... clearing of native vegetation is not permitted in vegetation types or landscapes that are already overcleared or listed as threatened at the national, regional or landscape scales, unless the vegetation is in low condition.

Should the CMA determine that the vegetation of the site be considered as the Endangered Ecological Community due to the sites association with Wallis Lake, or due to application of precautionary principle which is contrary to the evidence provided in this report, an assessment was undertaken to determine whether this community would be considered as Low Quality in accordance with the Environmental Outcomes Assessment Methodology.

Vegetation in low condition is defined as follows:

“Native woody vegetation with an:

1. over-storey per cent foliage cover <25% of the lower value of the over-storey per cent foliage cover benchmark for that vegetation type; and
2. <50% of vegetation in the ground layer is indigenous species; or
3. >90% is ploughed or fallow.

Native grassland, shrubland, wetland or herbfield with:

1. <50% of vegetation in the ground layer is indigenous species; or
2. >90% is ploughed or fallow.

Only patches of vegetation >0.25 ha are assessed separately (as distinct zones) from surrounding vegetation (e.g. a patch of vegetation with benchmark over-storey cover that <0.25 ha is not assessed separately from surrounding vegetation with sparser over-storey cover)” (NSW Department of Natural Resources 2007)

This assessment was undertaken through Aerial Photograph Interpretation (API) which includes patch size determination, visual estimates of overstorey Foliage Projection Cover in accordance with Walker and Hopkins (1979) and visual estimation of introduced species occurrence in the understorey components.

A series of Random Meander transects through the low lying ‘slashed’ swamp forest on the site were undertaken to assess/identify those areas meeting the low condition criteria outlined above. Vegetation condition was determined by visual assessment of both foliage cover (overstorey; ground layer) and species composition (ground layer).

Results and Discussion

3.1 Results of Tree assessment and Koala Habitat Assessment

Tree Assessment

A total of 443 trees were assessed during the field tree survey and the majority of these comprised *Melaleuca quinquenervia* (298). A total of 21 of these trees were found to contain hollow cavities, and/or were considered to have potential to contain hollows. All the hollows identified during the assessment are considered to be of low value and are primarily represented by small branch hollows that do not lead to any substantial internal cavities. In addition, these hollows are expected to have a limited life span and are relatively exposed.

A total of 22 dead trees (bark present, but no foliage) were identified during the surveys, and evidence of die-back was observed on nearly half the trees assessed.

A total of 45 *Livistona australis* were identified during the tree survey, however, these trees did not have survey tags on them.

Koala Habitat Assessment

A single tree species listed under Schedule 2 of SEPP 44 was identified within the site, namely *Eucalyptus robusta*. A total of 73 *E. robusta* were identified within the site which represents 16.5 % of the total number of trees (73/443) surveyed within the site. The site therefore contains *potential Koala habitat* pursuant to SEPP 44. It was noted that 18 of the Swamp Mahoganies surveyed occur as stags with no foliage as discussed which would reduce the percentage of feed trees within the overstorey to below the 15% designation for Preferred Koala habitat.

There was no evidence of habitat utilisation by the Koala identified by the specific scat and scratch searches. This indicates that site is unlikely to contain *core Koala habitat* pursuant to SEPP 44.

3.2 Vegetation Community description and Assessment of Conservation significance

The majority of the site is heavily disturbed due to previous clearing, however, a small remnant and regrowth patches of vegetation occur which vary in quality and in conservation significance.

3.2.1 Vegetation Community description

The remnant vegetation within the site is disturbed *Eucalyptus robusta/Melaleuca quinquenervia* Swamp Sclerophyll Forest which is floristically similar (albeit disturbed) and structurally similar to the Endangered Ecological Community, *Swamp Sclerophyll Forest on Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions*. The disturbed nature of this community is illustrated in Photos 1 and 2. As such, investigation into the geological formation, soil types and hence habitats on which this community occurs were undertaken to determine whether this community satisfies the Final Determination of the EEC or, whether this community more appropriately conforms to the similar community which occurs on sandplains in the NSW northern Bioregion (Keith and Scott 2005).

3.2.2 Site Geology and Soils

The Bulahdelah 1:100 000 Geological Series Sheet (DMR, 1991) classifies the site as being comprised of “estuarine sandy backbarrier deposits (washover and tidal delta deposits)” (refer to **Figure 3.1**). Draft soil landscape mapping (DNR, 2007) also indicates that the site contains underlain by deep siliceous sands. The subsequent field investigations determined that soils on the site are typical Podsol (siliceous) soils, with little structure and scattered organic deposits contained throughout the profile, primarily at the top. A leached profile is likely to be underlain by either early-Holocene or Pleistocene clays at greater depths (approx. 3 m), which would be responsible for waterlogging of the soil profile in places. Photographs 3 and 4 demonstrate the sandy nature of the soils on the site. In particular, the sands are typically marine in origin, being coarse grained, rounded, well-sorted and free of lithics.

Both the soil mapping and subsequent field investigation determined that the site is underlain by flood-tide delta sands of marine origin deposited during the last interglacial, as sea level rose and pushed marine sand into the entrance of the Wallis Lake palaeo-valley. As such the site is therefore not a floodplain as it was not formed by fluvial depositional processes. Rather, the site was formed by marine and tidal processes, which is not consistent with the depositional environments of the EEC nor the resulting soil types that this community occurs on, as described in the Final Determination.

“Swamp Sclerophyll Forest on Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions is the name given to the ecological community associated with humic clay loams and sandy loams, on waterlogged or periodically inundated alluvial flats and drainage lines associated with coastal floodplains. Floodplains are level landform patterns on which there may be active erosion and aggradation by channelled and overbank stream flow with an average recurrence interval of 100 years or less (adapted from Speight 1990).”

The final determination clearly states that “*Swamp Sclerophyll Forest on Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions is the name given to the ecological community associated with humic clay loams and sandy loams, on waterlogged or periodically inundated alluvial flats and drainage lines associated with coastal floodplains*”. Inspection of site and reference to the published geological map (DMR, 1991) indicates clearly that:

- the soils are not consistent with the description of humic clay loams and sandy loams (typical of fluvial depositional environments). Rather, the soils are Podzols, formed through marine and tidal sediment transport processes; and
- the depositional environment of the site is clearly not an alluvial flat or a drainage line associated with a coastal floodplain, as it has not been formed by fluvial depositional processes.

The determination continues to make this distinction on a soil type basis through.... *“or where the larger floodplains **adjoin** lithic substrates or coastal sand plains in the NSW North Coast”*. The site is not adjoined by a floodplain.

As similar ecological communities occur on coastal sandplains, which includes sub-aerial tidal delta depositional environments as well as aeolian depositional environments, the use of floristic and structural descriptions alone as a basis for the identification of the community as an EEC is incorrect. We refer to the Final Determination of Swamp Sclerophyll forest and Keith and Scott (2005), which is a reference relied upon in the determination and, recent Land and Environment Court judgements relating to, this EEC.

The Keith and Scott (2005) reference paper is the single comprehensive reference which describes the native vegetation of coastal floodplains. The method used in this paper to differentiate the similar ecological communities on sandplains versus floodplains was through the interpretation of the outcomes of floristic analyses using 1:100 000 Soil Landscape Maps.

Our investigations of the available mapping (DNR, 2007; DMR, 1991) have determined that soil landscapes on the site are clearly comprised of coastal tidal delta sand deposits. The occurrence of this within and adjoining the subject land has been further verified in the field.

Keith and Scott (2005) also clearly, and repeatedly, refer to the difference between similar communities on sandplain and floodplain and have separated these two communities in the PATN dendrogram and the discussion of ecological relationships between communities.

In *Motorplex (Australia) Pty Limited v Port Stephens Council* [2007] NSWLEC 74 the judgement states that *“In this case, the areas of the site have the necessary association with the identified soils (clay loams and sandy loams) and occur on the identified landforms of waterlogged or periodically inundated alluvial flats and drainage lines.”*

It is clear that based on this decision, and that the site neither contains clay nor sandy loam soils and is not an alluvial flat or a coastal floodplain, but rather a sub-aerial flood tide delta, therefore the vegetation community on the site does not meet the criteria of the EEC *“Swamp Sclerophyll Forest on Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions* as its name clearly suggests *is* Swamp Forest occurring on, or associated with, coastal floodplains..

The only criteria that the Community within the site satisfies is that it occurs on land within the modelled extent of a 1:100 year flood zone, however this 1: 100 ARI is an arbitrary descriptor of floodplains not based on the geological or geo-morphological processes which characterise a floodplain.

It is important to note that this must be considered as a secondary descriptor of the extent of floodplains and that 1:100 ARI flood levels occur in any areas regardless of substrate where backwaters are constricted during large storm events therefore, these modelled areas can occur almost anywhere including tablelands, built environments etc. Therefore this criteria is only relevant for the determination of an EEC where this has been modelled on a floodplain.

3.2.3 Vegetation Condition Assessment

The Assessment methodology states that only patches of vegetation >0.25 ha are assessed separately (as distinct zones) from surrounding vegetation. The remnant occurring on the site has been calculated to be approximately 0.25 ha however, when cleared gaps in the community are removed from this areal extent of the community, the community is actually less than 0.25 ha in size and as such, the community should not be mapped as a remnant in strict accordance with the Assessment methodology.

As the community is Swamp Sclerophyll forest, for the purposes of the condition assessment, the community is assessed under the “Native woody vegetation” and as such, the percentage of remaining overstorey and the percentage cover of introduced species in the understorey were assessed.

The field investigations determined that the overstorey of the community has also been modified resulting in an overstorey cover percentage approximating 50% - 90%. As such, the condition assessment that based on overstorey cover cannot be considered low (<25%).

The percentage of introduced species cover in the understorey was also found to be variable ranging from approximately 50% to 100%. This was due to the large cover of the introduced climber Morning Glory (*Ipomoea purpurea*) and to a lesser extent other species including Lantana (*Lantana camara*), Giant Paspalum (*Paspalum dilatatum*), Tobacco bush (*Solanum mauritianum*) Balloon Cotton (*Gomphocarpus physocarpus*), etc. which had infested the majority of the remnant.

As such it is considered that the community is of low quality in accordance with the Assessment methodology based on the percentage of introduced groundcover however based strictly on the size of the area should not be mapped as a separate unit to the surrounding disturbed vegetation community.

Therefore based on the above assessments and investigations the remnant community should not be considered from a scientific perspective to analogous to the EEC however should either agency incorrectly define this community as conforming to the listed EEC, the size and degraded nature of the remnant must be considered as a low quality community and can be offset.

3.2.4 Conservation significance for Threatened Flora and Fauna

While the occurrence of the Threatened plant Trailing Woodruff (*Asperula asthenes*) has been confirmed adjoining the subject site during the surveys, specific searches failed to detect the species within the proposed development area. In addition, no other threatened plant species such as Noah's False Chickweed (*Lindernia alsinoides*) were detected within the site. As such, the site is not considered as likely to support any Threatened plant species.

The site however does provide suitable habitats for a variety of Threatened Fauna species, however the value of these habitats are limited due to occurrence of only a small number of hollow bearing trees and the disturbed nature of the site. It is considered that the site would support habitats for Grey-headed Flying-fox (*Pteropus poliocephalus*), Squirrel Glider (*Petaurus norfolcensis*) and a small number of Micro-chiropteran bats which would use the site for foraging purposes. In addition, one Threatened Amphibian species, the Wallum Froglet (*Crinia tinnula*) was recorded in the habitats to the west of the proposed development area. The surveys also determined that the site does not support core habitat for the Koala pursuant to SEPP 44 and the lack of any signs of the species suggests that the site may not be used by the species. The site is also unlikely to support habitat appropriate for any Threatened birds known or potentially occurring in the locality.

3.2.5 Opportunistic observations

Light to Moderate rain was experienced during both days of the tree assessment, and the following frog species were heard calling during this time:

- *Crinia signifera*;
- *Crinia tinnula*[^];
- *Litoria peronii*;
- *Litoria dentata*; and
- *Litoria fallax*.

[^] *Crinia tinnula*, which is listed as Vulnerable by the TSC Act, was only heard calling during the field assessment undertaken on 14 January 2008. This species was identified from occasional calls originating from the habitats adjoining the south and south west of the proposed development site (Bulky goods area). No other Threatened frogs were heard calling during the assessment.

There were no other Threatened fauna species identified during the tree surveys. Similarly, there was no evidence of habitat utilisation by any Threatened fauna species identified within the site during the survey.

Conclusion

4.1 Conclusion

The field investigations undertaken have determined that the remnant vegetation communities within the proposed Big W development site do not satisfy the final determinations of the Endangered Ecological Community Swamp Sclerophyll Forest on Coastal Floodplains.

The assessment further determined that due to the small size of the remnant which, if calculated on areal extent which excludes cleared patches, is unlikely to be large enough (less than 0.25ha) to be mapped separately from the surrounding community in accordance with Assessment methodology. In addition, the vegetation community has an understorey which is heavily infested with introduced weed species such that the community would be considered as low quality.

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Appendix A

RESULTS OF TREE ASSESSMENT

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
1	A2 - W	<i>A. melanoxylon</i>	12	8				
2	A3 - W	<i>A. melanoxylon</i>	12	7				
3	417	<i>A. melanoxylon</i>	30	8				Strong lean. May fall over soon
4	422	<i>A. melanoxylon</i>	23	10				
5	A1 - W	<i>Acacia melanoxylon</i>	12	8				
6	T18^	<i>Angophora costata</i>	45	12	1B			Major die back. Low value potential branch hollow.
7	T19^	<i>Angophora costata</i>	12	4				Small tree
8	T20^	<i>Angophora costata</i>	18	5				Small tree
9	526	<i>C. glauca</i>	20	10				
10	523	<i>C. glauca</i>	23	12				
11	521	<i>C. glauca</i>	25	10				
12	C2	<i>Callistemon sp</i>	12	4				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
13	C3	<i>Callistemon sp</i>	12	4				
14	C4	<i>Callistemon sp</i>	15	5				
15	C1	<i>Callistemon sp</i>	12	6				
16	421	<i>Casuarina glauca</i>	23	12				
17	336	<i>E. robusta</i>						Marked on plan, but could not find in field
18	340	<i>E. robusta</i>	25	8				Limited foliage, low value
19	SM3*	<i>Eucalyptus robusta</i>	45	12				Outside site boundary
20	SM2	<i>Eucalyptus robusta</i>	40	12				Outside site boundary
21	SM1	<i>Eucalyptus robusta</i>	40	12				Outside site boundary
22	SM4*	<i>Eucalyptus robusta</i>	19	9				
23	SM5*	<i>Eucalyptus robusta</i>	45	12				
24	SM13	<i>Eucalyptus robusta</i>	45	11				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
25	SM14*	<i>Eucalyptus robusta</i>	40	12	1B			Limited value split branch hollow.
26	SM15	<i>Eucalyptus robusta</i>	28	12				
27	SM16	<i>Eucalyptus robusta</i>	40	12				
28	SM17	<i>Eucalyptus robusta</i>	40	12				
29	T1 (no tag)	<i>Eucalyptus robusta</i>	35	12				
30	SM11*	<i>Eucalyptus robusta</i>	40	12	1B			Low value potential branch hollow.
31	SM12	<i>Eucalyptus robusta</i>	28	12				
32	T2 (no tag)	<i>Eucalyptus robusta</i>	50	13				
33	SM7	<i>Eucalyptus robusta</i>	35	11	1B			Low value potential branch hollow.
34	SM6*	<i>Eucalyptus robusta</i>	55	13				
35	SM9*	<i>Eucalyptus robusta</i>	35	12				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
36	SM10*	<i>Eucalyptus robusta</i>	35	12		1T		Dead tree. Potential trunk hollow, however, low value as cracked.
37	SM8	<i>Eucalyptus robusta</i>	35	12				
38	353 (previous 'T3')	<i>Eucalyptus robusta</i>	55	13				
39	SM32*	<i>Eucalyptus robusta</i>	25	7	2B	1B		
40	SM53	<i>Eucalyptus robusta</i>	15	4				Small tree.
41	416 (previous - T4)	<i>Eucalyptus robusta</i>	25	6				Small tree.
42	415 (previous - T5)	<i>Eucalyptus robusta</i>	15	6				Small tree.
43	428 (previous - 'T6')	<i>Eucalyptus robusta</i>	15	6				Small tree.

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
44	474 (previous - T7)	<i>Eucalyptus robusta</i>	15	5				Small tree.
45	469 (previous - T8)	<i>Eucalyptus robusta</i>	12	4				Small tree.
46	SM47	<i>Eucalyptus robusta</i>	40	12				
47	SM48*	<i>Eucalyptus robusta</i>	35	10				Over run by morning glory.
48	SM49	<i>Eucalyptus robusta</i>	35	12				Over run by morning glory.
49	SM50	<i>Eucalyptus robusta</i>	35	12				Outside site boundary
50	SM51	<i>Eucalyptus robusta</i>	35	12				Outside site boundary
51	SM52*	<i>Eucalyptus robusta</i>	23	6				
52	520 (previous - T9)	<i>Eucalyptus robusta</i>	12	4				Small tree.

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
53	T10 (no tag)	<i>Eucalyptus robusta</i>	18	8				May be outside site boundary
54	T11* (no tag)	<i>Eucalyptus robusta</i>	20	7				May be outside site boundary
55	T12 (no tag)	<i>Eucalyptus robusta</i>	20	6				
56	T13 (no tag)	<i>Eucalyptus robusta</i>	12	4				Small tree.
57	T14 (no tag)	<i>Eucalyptus robusta</i>	18	5				
58	SM46	<i>Eucalyptus robusta</i>	20	10	IB			Limited foliage. Low value branch hollow.
59	SM45*	<i>Eucalyptus robusta</i>	35	12		1T		Major die back. Split trunk hollow unlikely to lead to internal cavity.
60	SM41*	<i>Eucalyptus robusta</i>	30	10	IB	1T		Dead tree, exposed low value potential hollows.
61	SM40	<i>Eucalyptus robusta</i>	35	12				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
62	SM42*	<i>Eucalyptus robusta</i>	25	10				Dead tree. No suitable cavities.
63	SM43*	<i>Eucalyptus robusta</i>	50	12				Dead tree. No suitable cavities.
64	SM44*	<i>Eucalyptus robusta</i>	35	12				Dead tree. No suitable cavities.
65	SM39	<i>Eucalyptus robusta</i>	35	12				
66	SM33*	<i>Eucalyptus robusta</i>	40	12	3B			3 potential branch cavities, however all cracked. Tree has limited foliage.
67	SM38	<i>Eucalyptus robusta</i>	40	12				
68	SM37*	<i>Eucalyptus robusta</i>	35	12		1T		Dead tree. Split trunk cavity, low value.
69	SM36*	<i>Eucalyptus robusta</i>	35	10	2B			Dead tree. Low value small branch hollows.
70	SM35*	<i>Eucalyptus robusta</i>	35	12				Dead tree.
71	338 (previous 'T15')	<i>Eucalyptus robusta</i>	18	8				Dead tree.
72	SM34*	<i>Eucalyptus robusta</i>	45	13	2B			Dead tree. Low value branch hollows.

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
73	SM28	<i>Eucalyptus robusta</i>	25	8		1T		Medium trunk cavity reasonable quality, however the tree is dead, and therefore limited life span for hollow.
74	SM29	<i>Eucalyptus robusta</i>	45	13	1B	1B		Low value potential branch hollows.
75	SM30*	<i>Eucalyptus robusta</i>	30	12				
76	SM31*	<i>Eucalyptus robusta</i>	30	12				
77	SM27	<i>Eucalyptus robusta</i>	30	12				Dead tree.
78	SM24*	<i>Eucalyptus robusta</i>	40	12				Dead tree.
79	SM25*	<i>Eucalyptus robusta</i>	25	10				Dead tree.
80	SM26*	<i>Eucalyptus robusta</i>	18	10				Dead tree.
81	SM23*	<i>Eucalyptus robusta</i>	25	12				
82	SM22*	<i>Eucalyptus robusta</i>	48	13		1B		Dead tree. Low value potential branch hollow.
83	T16* (no tag)	<i>Eucalyptus robusta</i>	35	12				Dead tree.

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
84	SM21*	<i>Eucalyptus robusta</i>	35	11				
85	SM20*	<i>Eucalyptus robusta</i>	20	7				Mostly epicormic shoots. Major dieback.
86	SM19*	<i>Eucalyptus robusta</i>	35	12				
87	SM18*	<i>Eucalyptus robusta</i>	50	13				
88	T17 (no tag)	<i>Eucalyptus robusta</i>	25	7				Dead tree.
89	S1 - W	<i>Eucalyptus robusta</i>	15	5				Small tree
90	T20^	<i>Glochidion ferdinandi</i>	20	5				
91	L2 - W	<i>L. australis</i>	27	9				
92	L3 - W	<i>L. australis</i>	20	7				
93	L4 - W	<i>L. australis</i>	35	9				
94	L5 - W	<i>L. australis</i>	20	5				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
95	L6 - W	<i>L. australis</i>	20	5				
96	L7 - W	<i>L. australis</i>	25	9				
97	L8 - W	<i>L. australis</i>	27	10				
98	L9 - W	<i>L. australis</i>	25	7				
99	L10 - W	<i>L. australis</i>	20	9				
100	L11 - W	<i>L. australis</i>	25	10				
101	L12 - W	<i>L. australis</i>	25	10				
102	L13 - W	<i>L. australis</i>	27	8				
103	L14 - W	<i>L. australis</i>	25	8				
104	L15 - W	<i>L. australis</i>	27	10				
105	L16 - W	<i>L. australis</i>	27	10				
106	L17 - W	<i>L. australis</i>	25	7				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
107	L18 - W	<i>L. australis</i>	27	11				
108	L19 - W	<i>L. australis</i>	23	8				
109	L20 - W	<i>L. australis</i>	30	9				
110	L21 - W	<i>L. australis</i>	37	9				
111	L22 - W	<i>L. australis</i>	30	7				Large amount of leaf litter at base
112	L23 - W	<i>L. australis</i>	25	10				Next to untagged robusta
113	L24 - W	<i>L. australis</i>	35	11				Tangled with weeds
114	L25 - W	<i>L. australis</i>	30	4				
115	L26 - W	<i>L. australis</i>	40	5				Many fronds around base of tree
116	L1	<i>L. australis</i>	40	7				
117	L2	<i>L. australis</i>	30	8				
118	L3	<i>L. australis</i>	30	9				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
119	L4	<i>L. australis</i>	30	9				
120	L5	<i>L. australis</i>	30	7				
121	L6	<i>L. australis</i>	35	5				
122	L7	<i>L. australis</i>	30	10				
123	L8	<i>L. australis</i>	35	6				
124	L9	<i>L. australis</i>	40	3				
125	L10	<i>L. australis</i>	30	10				
126	L11	<i>L. australis</i>	35	4				
127	L12	<i>L. australis</i>	30	7				
128	M12	<i>L. australis</i>	28	11				
129	L13	<i>L. australis</i>	45	3				
130	L14	<i>L. australis</i>	33	10				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
131	L15	<i>L. australis</i>	30	9				
132	L16	<i>L. australis</i>	30	10				
133	L17	<i>L. australis</i>	30	6				
134	L18	<i>L. australis</i>	30	10				
135	L1 - W	<i>Livistona australis</i>	25	9				
136	M14	<i>M. nodosa</i>	12	4				
137	M15	<i>M. nodosa</i>	20	4				
138	455	<i>M. quinquenervia</i>	40	10				
139	456	<i>M. quinquenervia</i>	35	9				Possible trunk cavities
140	457	<i>M. quinquenervia</i>	30	9				
141	458	<i>M. quinquenervia</i>	55	10			1T	Long hollow at base of tree
142	459	<i>M. quinquenervia</i>	20	5				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
143	461	<i>M. quinquenervia</i>	30	10				
144	460	<i>M. quinquenervia</i>	40	10				
145	449	<i>M. quinquenervia</i>	40	10				
146	450	<i>M. quinquenervia</i>	30	8				Joined to tree 451
147	451	<i>M. quinquenervia</i>	35	10				Potential small trunk hollows
148	452	<i>M. quinquenervia</i>	30	10				Possible small trunk hollows
149	453	<i>M. quinquenervia</i>	30	10				Trunk cavities forming
150	447	<i>M. quinquenervia</i>	15	8				
151	448	<i>M. quinquenervia</i>	50	12				Twin trunks, old tree, but healthy
152	446	<i>M. quinquenervia</i>	35	11				
153	445	<i>M. quinquenervia</i>	35	10		1T		Cavity formed in dead branch
154	444	<i>M. quinquenervia</i>	40	10				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
155	443	<i>M. quinquenervia</i>	35	10				
156	440	<i>M. quinquenervia</i>	35	10				
157	439	<i>M. quinquenervia</i>	35	10				Joined at base to tree 438
158	438	<i>M. quinquenervia</i>	35	10				
159	437	<i>M. quinquenervia</i>	25	10				
160	434	<i>M. quinquenervia</i>	60	11				Joined at base to tree 435. Possibly same tree
161	435	<i>M. quinquenervia</i>	30	12				
162	436	<i>M. quinquenervia</i>	50	12				
163	433	<i>M. quinquenervia</i>	50	12				
164	432	<i>M. quinquenervia</i>	35	12				
165	431	<i>M. quinquenervia</i>	35	12				
166	428	<i>M. quinquenervia</i>	55	12				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
167	430	<i>M. quinquenervia</i>	20	10				
168	429	<i>M. quinquenervia</i>	45	12				
169	427	<i>M. quinquenervia</i>	35	10				
170	426	<i>M. quinquenervia</i>	30	9				Covered with weeds
171	425	<i>M. quinquenervia</i>	37	9				
172	424	<i>M. quinquenervia</i>	20	9				
173	414	<i>M. quinquenervia</i>	40	9				
174	418	<i>M. quinquenervia</i>	55	12				
175	419	<i>M. quinquenervia</i>	45	12				Tangled with weeds
176	420	<i>M. quinquenervia</i>	17	10				
177	423	<i>M. quinquenervia</i>	30	11				Tangled with weeds
178	413	<i>M. quinquenervia</i>	35	10				Joined at the base. Tangled with weeds

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
179	412	<i>M. quinquenervia</i>	35	10				Tanlgd with weeds
180	411	<i>M. quinquenervia</i>	35	10				Tanlgd with weeds
181	M3 - W	<i>M. quinquenervia</i>	15	8				Stand of untagged trees next to 408
182	M4 - W	<i>M. quinquenervia</i>	20	8				Stand of untagged trees next to 408
183	M5 - W	<i>M. quinquenervia</i>	10	7				Stand of untagged trees next to 408
184	M6 - W	<i>M. quinquenervia</i>	25	8				Stand of untagged trees next to 408
185	M7 - W	<i>M. quinquenervia</i>	25	8				Stand of untagged trees next to 408
186	M8 - W	<i>M. quinquenervia</i>	17	9				Stand of untagged trees next to 408
187	M9 - W	<i>M. quinquenervia</i>	20	9				Stand of untagged trees next to 408
188	M10 - W	<i>M. quinquenervia</i>	30	12				Stand of untagged trees next to 408
189	M11 - W	<i>M. quinquenervia</i>	15	10				Stand of untagged trees next to 408
190	M12 - W	<i>M. quinquenervia</i>	30	12				Stand of untagged trees next to 408

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
191	M13 - W	<i>M. quinquenervia</i>	20	12				Stand of untagged trees next to 408
192	325	<i>M. quinquenervia</i>	45	9				Area 3' - southern area
193	326	<i>M. quinquenervia</i>	25	10				
194	327	<i>M. quinquenervia</i>	40	10				
195	328	<i>M. quinquenervia</i>	30	9				
196	329	<i>M. quinquenervia</i>	35	11				
197	330	<i>M. quinquenervia</i>	15	10				
198	331	<i>M. quinquenervia</i>	37	12				
199	324	<i>M. quinquenervia</i>	33	10				Unhealthy
200	323	<i>M. quinquenervia</i>	30	10				Possibly dead
201	321	<i>M. quinquenervia</i>	30	10				
202	322	<i>M. quinquenervia</i>	23	10				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
203	320	<i>M. quinquenervia</i>	25	10				
204	319	<i>M. quinquenervia</i>	33	11				
205	316	<i>M. quinquenervia</i>	27	10				
206	317	<i>M. quinquenervia</i>	20	10				
207	315	<i>M. quinquenervia</i>	25	12				
208	313	<i>M. quinquenervia</i>	35	12				
209	318	<i>M. quinquenervia</i>	40	10				Twin trunks. Evidence of birds roosting (small amount of white wash - unlikely owls or raptor)
210	311	<i>M. quinquenervia</i>	30	12				
211	312	<i>M. quinquenervia</i>	45	12				
212	304	<i>M. quinquenervia</i>	45	12				
213	307	<i>M. quinquenervia</i>	25	8				
214	308	<i>M. quinquenervia</i>	20	8				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
215	M14 - W	<i>M. quinquenervia</i>	15	8				
216	309	<i>M. quinquenervia</i>	17	7				
217	314	<i>M. quinquenervia</i>	20	9				
218	310	<i>M. quinquenervia</i>	40	9				
219	306	<i>M. quinquenervia</i>	35	12				
220	305	<i>M. quinquenervia</i>	35	12				
221	303	<i>M. quinquenervia</i>	50	12				
222	300	<i>M. quinquenervia</i>	35	10				
223	301	<i>M. quinquenervia</i>	37	10				
224	302	<i>M. quinquenervia</i>	37	10				
225	518	<i>M. quinquenervia</i>	30	11				Multi-stemmed
226	524	<i>M. quinquenervia</i>	20	10				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
227	522	<i>M. quinquenervia</i>	20	8				
228	527	<i>M. quinquenervia</i>	20	10				
229	529	<i>M. quinquenervia</i>	25	8				
230	530	<i>M. quinquenervia</i>	40	10				
231	531	<i>M. quinquenervia</i>	30	10				
232	543	<i>M. quinquenervia</i>	35	12				Unhealthy tree
233	548	<i>M. quinquenervia</i>	30	10				Multi-stemmed. Dead
234	484	<i>M. quinquenervia</i>	40	12				Multi-stemmed.
235	485	<i>M. quinquenervia</i>	45	12				
236	490	<i>M. quinquenervia</i>	40	12				Twin trunks
237	487	<i>M. quinquenervia</i>	20	12				
238	486	<i>M. quinquenervia</i>	35	12				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
239	488	<i>M. quinquenervia</i>	35	12				
240	483	<i>M. quinquenervia</i>	25	11				
241	482	<i>M. quinquenervia</i>	20	12				
242	479	<i>M. quinquenervia</i>	25	12				
243	480	<i>M. quinquenervia</i>	25	12				
244	408	<i>M. quinquenervia</i>	30	10				
245	409	<i>M. quinquenervia</i>	35	11				
246	410	<i>M. quinquenervia</i>	25	10				
247	400	<i>M. quinquenervia</i>	40	11				
248	399	<i>M. quinquenervia</i>	20	9				
249	401	<i>M. quinquenervia</i>	35	11				
250	402	<i>M. quinquenervia</i>	35	11				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
251	403	<i>M. quinquenervia</i>	30	11				
252	404	<i>M. quinquenervia</i>	35	11				
253	406	<i>M. quinquenervia</i>	55	13				
254	407	<i>M. quinquenervia</i>	20	10				
255	396	<i>M. quinquenervia</i>	40	12				
256	395	<i>M. quinquenervia</i>	25	11				
257	394	<i>M. quinquenervia</i>	25	11				
258	M1	<i>M. quinquenervia</i>	11	8				Young tree
259	M2	<i>M. quinquenervia</i>	15	6				Young tree
260	390	<i>M. quinquenervia</i>	50	13				Large tree
261	M3	<i>M. quinquenervia</i>	16	8				On lean
262	397	<i>M. quinquenervia</i>	30	11				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
263	M4	<i>M. quinquenervia</i>	16	4				Small tree
264	398	<i>M. quinquenervia</i>	40	12				
265	M5	<i>M. quinquenervia</i>	25	11				
266	M6	<i>M. quinquenervia</i>	25	10				
267	M7	<i>M. quinquenervia</i>	45	12				
268	M8	<i>M. quinquenervia</i>	45	12				
269	389	<i>M. quinquenervia</i>	50	11				
270	384	<i>M. quinquenervia</i>	35	12				
271	385	<i>M. quinquenervia</i>	30	12				
272	M9	<i>M. quinquenervia</i>	15	5				Small tree
273	M10	<i>M. quinquenervia</i>	18	5				Small tree
274	387	<i>M. quinquenervia</i>	20	11				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
275	386	<i>M. quinquenervia</i>	25	11				
276	M11	<i>M. quinquenervia</i>	18	7				
277	388	<i>M. quinquenervia</i>	40	13				
278	364	<i>M. quinquenervia</i>	35	12				
279	392	<i>M. quinquenervia</i>	30	11				
280	M13	<i>M. quinquenervia</i>	25	10				Limited foliage, near dead
281	391	<i>M. quinquenervia</i>	40	13				
282	393	<i>M. quinquenervia</i>	35	12				
283	368	<i>M. quinquenervia</i>	45	12				
284	374	<i>M. quinquenervia</i>	45	9				
285	367	<i>M. quinquenervia</i>	40	12				
286	369	<i>M. quinquenervia</i>	45	12				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
287	370	<i>M. quinquenervia</i>	30	10				
288	371	<i>M. quinquenervia</i>	40	10				
289	372	<i>M. quinquenervia</i>	35	12				
290	373	<i>M. quinquenervia</i>	35	12				
291	376	<i>M. quinquenervia</i>	35	12				
292	375	<i>M. quinquenervia</i>	38	12				
293	377	<i>M. quinquenervia</i>	38	11				
294	355	<i>M. quinquenervia</i>	28	10				
295	354	<i>M. quinquenervia</i>	30	9				2 main stems
296	351	<i>M. quinquenervia</i>	28	9				
297	350	<i>M. quinquenervia</i>	30	12				
298	349	<i>M. quinquenervia</i>	30	12				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
299	347	<i>M. quinquenervia</i>	32	12				
300	356	<i>M. quinquenervia</i>	30	12				
301	346	<i>M. quinquenervia</i>	25	11				
302	348	<i>M. quinquenervia</i>	30	11				
303	332	<i>M. quinquenervia</i>	40	12				
304	333	<i>M. quinquenervia</i>	25	5				Dead trunk on side stem, however, no hollow
305	378	<i>M. quinquenervia</i>	30	9				
306	379	<i>M. quinquenervia</i>	35	13				
307	380	<i>M. quinquenervia</i>	30	11				
308	381	<i>M. quinquenervia</i>	25	10				
309	M21	<i>M. quinquenervia</i>	25	8				Dead tree, however, no hollows
310	382	<i>M. quinquenervia</i>	35	13				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
311	383	<i>M. quinquenervia</i>	25	10				
312	358	<i>M. quinquenervia</i>	55	12				
313	M19	<i>M. quinquenervia</i>	18	4				
314	339	<i>M. quinquenervia</i>	40	13				
315	337	<i>M. quinquenervia</i>	35	12				
316	M20	<i>M. quinquenervia</i>	25	8				
317	334	<i>M. quinquenervia</i>	35	12				
318	335	<i>M. quinquenervia</i>	50	13				
319	342	<i>M. quinquenervia</i>	10	5				Small multi-stemmed tree
320	341	<i>M. quinquenervia</i>	35	11				
321	343	<i>M. quinquenervia</i>	35	11				
322	362	<i>M. quinquenervia</i>	55	10				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
323	363	<i>M. quinquenervia</i>	45	12				
324	365	<i>M. quinquenervia</i>	50	12				
325	366	<i>M. quinquenervia</i>	35	12				
326	360	<i>M. quinquenervia</i>	50	13				Potential for small branch hollows. Low value
327	361	<i>M. quinquenervia</i>	45	10				
328	359	<i>M. quinquenervia</i>	100	12				Fork at DBH
329	M16	<i>M. quinquenervia</i>	30	12				Stag, no visible hollows
330	M17	<i>M. quinquenervia</i>	25	9				
331	M18	<i>M. quinquenervia</i>	40	13				Multi-stemmed at base
332	357	<i>M. quinquenervia</i>	40	12				
333	345	<i>M. quinquenervia</i>	30	10				
334	344	<i>M. quinquenervia</i>	30	9				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
335	352	<i>M. quinquenervia</i>	30	12				
336	352A	<i>M. quinquenervia</i>	35	12				
337	468	<i>M. quinquenervia</i>	30	7				
338	467	<i>M. quinquenervia</i>	30	7				
339	465	<i>M. quinquenervia</i>	25	7				
340	464	<i>M. quinquenervia</i>	30	7				
341	466	<i>M. quinquenervia</i>	25	6				
342	470	<i>M. quinquenervia</i>	18	7				
343	M21	<i>M. quinquenervia</i>	15	4				Juvenile tree
344	M22	<i>M. quinquenervia</i>	15	4				Juvenile tree
345	M23	<i>M. quinquenervia</i>	20	9				
346	519	<i>M. quinquenervia</i>	20	8				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
347	517	<i>M. quinquenervia</i>	20	7				
348	M24	<i>M. quinquenervia</i>	15	7				
349	M25	<i>M. quinquenervia</i>	20	7				
350	516	<i>M. quinquenervia</i>	20	9				
351	514	<i>M. quinquenervia</i>	15	9				
352	540	<i>M. quinquenervia</i>	35	12				
353	541	<i>M. quinquenervia</i>	30	6				
354	539	<i>M. quinquenervia</i>	25	9				
355	535	<i>M. quinquenervia</i>	30	11				
356	536	<i>M. quinquenervia</i>	30	8				
357	537	<i>M. quinquenervia</i>	30	8				
358	538	<i>M. quinquenervia</i>	35	13				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
359	542	<i>M. quinquenervia</i>	35	12				
360	544	<i>M. quinquenervia</i>	30	12				
361	545	<i>M. quinquenervia</i>	28	12				
362	547	<i>M. quinquenervia</i>	30	10				Dead tree, no visible hollows. At western edge, maybe outside development area
363	495	<i>M. quinquenervia</i>	25	10				At western edge, maybe outside development area
364	497	<i>M. quinquenervia</i>	35	12				At western edge, maybe outside development area
365	498	<i>M. quinquenervia</i>	30	12				At western edge, maybe outside development area
366	499	<i>M. quinquenervia</i>	25	11				At western edge, maybe outside development area
367	540	<i>M. quinquenervia</i>	40	13				
368	496	<i>M. quinquenervia</i>	25	8				
369	481	<i>M. quinquenervia</i>	30	12				
370	475	<i>M. quinquenervia</i>	18	7				

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
371	473	<i>M. quinquenervia</i>	25	7				
372	476	<i>M. quinquenervia</i>	15	7				
373	442	<i>M. sieberi</i>	35	9				
374	M2 - W	<i>M. sieberi</i>	10	4				
375	M1 - W	<i>M. styphelioides</i>	15	5				
376	441	<i>M. styphelioides</i>	12	5				
377	494	<i>M. styphelioides</i>	20	9				At western edge, maybe outside development area
378	462	<i>Melaleuca quinquenervia</i>	55	10				Large tree
379	525	<i>M. quinquenervia</i>	20	10				Clump of 15 juvenile <i>M. quinquenervia</i> around this tree (DBH < 10 cm)
394	M23A	<i>M. quinquenervia</i>	5 to 20	5 to 8				Patch of approximately 8 small trees (<i>M. quinquenervia</i>) around 'M 23'
402	M26 -	<i>M. quinquenervia</i>	10 to	6 to 10				Patch of approximately 25 small trees (<i>M.</i>

Table A.1 - Results of Tree Assessment

Tree No.	Tag No.	Tree Species	Trunk DBH (cm)	Approximate Height (m)	Number of Diameter of Entrance to Visible Hollows T = Trunk, B = Branch			Comments
					Small (1-3cm)	Medium (>3-10cm)	Large (>10cm)	
	M50		25					quinquenervia) around 516
427	M51 - M59	<i>M. quinquenervia</i>	5 to 20	6 to 8				Patch of approximately 9 small trees (M. quinquenervia) around 'M 23'
443	M60 - M75	<i>M. quinquenervia</i>	10 to 25	6 to 10				Patch of approximately 16 small trees (M. quinquenervia) around 'M 23'

Notes: Cumulative list of frogs heard calling during surveys: *Crinia tinnula*, *Crinia signifera*, *Litoria peronii*, *Litoria dentate*, *Litoria fallax*.
 * = Trees exhibits die back. Numerous small dead branches that are unlikely to provide hollow resources.
 ^ = Trees near Lakes Way not tagged, but appear to be on the survey plan.
 no tag = Swamp Mahoganies with no tag and not surveyed by LSW. Have added – see map for general location
 W = Trees assessed by Will

Appendix B

SITE PHOTOGRAPHS



Photo 1: Photographs of the Swamp Sclerophyll forest remnant occurring on the site demonstrating the disturbed nature of this community. Note the heavy weed infestation.



Photo 2: Photographs of the Swamp Sclerophyll forest remnant occurring on the site demonstrating the disturbed nature of this community. Note the heavy weed infestation.





Photo 3: Photographs of the soils in undisturbed and disturbed areas of the site demonstrating the sandy nature of these soils.



Photo 4: Photographs of the soils in undisturbed and disturbed areas of the site demonstrating the sandy nature of these soils.

